

Mitigating Effects on an Industrial Pottery

From the mid-19th century into the early 20th century the city of Trenton, New Jersey was, along with East Liverpool, Ohio, one of the two dominant centers of pottery manufacture in the United States. During this time, the industry grew from one manufacturer to nearly 50 firms that produced a variety of ceramic products, including tableware, hotelware, sanitary porcelain, electrical porcelain and art pottery. The industry flourished in Trenton because of the city's geographic location between two major metropolitan centers (New York and Philadelphia) and its access to the regional canal and railroad transportation network. Once the industry was established, skilled potters from Staffordshire, England flocked to the region and entrepreneurs financed new ventures; this combination fueled the growth of the industry.

Between 1880 and 1930, Trenton reached its zenith as a center of industrial pottery production with facilities large and small ranging across the city. The number of plants dwindled to around 30 at the time of the Depression and by the end of World War II only 18 were listed as being in operation. The Depression was responsible for much of the industry's decline, but other factors, such as labor disputes and the increasing use of other materials (plastic and rubber), also played a role. Today, only a handful of industrial potteries still operate within the city limits, namely the facilities of the Bartley Crucible and Refractories Company, the General Porcelain Manufacturing Company, the National Ceramic Company, and the Star Porcelain Company.

In 1994, Hunter Research, working as a consultant to the New Jersey Department of Transportation, undertook a project that began with the survey and evaluation of just one industrial pottery manufacturing site but, by the end, encompassed the entire industry in a research-based mitigation plan whose final products, it is hoped, will serve as valuable tools to planners, researchers and educators alike.

That year the New Jersey Department of Transportation completed plans for construction of a southbound off-ramp on U.S. Route 1 in the vicinity of New York Avenue and Spruce Street in the City of Trenton, Mercer County, New Jersey. The right-of-way for the off-ramp was located on the site of the Enterprise Pottery Company, reputedly the first pottery in the United States devoted solely to the manufacture of sanitary porcelain and one of the original potteries in the Trenton Potteries Company conglomerate. The Enterprise Pottery was founded in 1880 and continued to operate until 1941.

During the Phase I cultural resource investigations, an historic architectural evaluation of the standing buildings was conducted by C. W. Zink & Co., visible foundations on the property were mapped by Hunter Research personnel, and a geophysical survey was conducted by Geo-Graf Geophysical Investigations, who used ground-penetrating radar to locate possible environmental and archeological features within the proposed right-of-way of the ramp. The ground-penetrating radar was successful in establishing the locations of five of the nine kilns associated with the Enterprise Pottery, confirming information given on late 19th and early 20th century insurance maps.

The fieldwork for the Phase II evaluation was performed in conjunction with environmental and geotechnical investigations at the site. The possibility of hazardous materials being present on the site required OSHA-trained staff to conduct the fieldwork. The site, which lies within the boundaries of the Delaware and Raritan Canal Historic District, was determined to be eligible for inclusion on the National Register of Historic Places as an industrial archeological resource containing valuable information on the Trenton potteries.

The New Jersey Department of Transportation, the New Jersey Historic Preservation Office and Hunter Research concluded that traditional archeological data recovery was not appropriate for this particular project. All parties agreed that the information that could potentially be retrieved from excavating the bases of the industrial pottery kilns within the ramp right-of-way would not substantially augment the existing body of knowledge on the technical aspects of kiln construction or industrial pottery manufacture. In addition, the necessity of excavating the site by OSHA-trained individuals, with the appropriate protective equipment, would have increased the duration of the fieldwork, and thus the project cost. Therefore, this mitigation plan was developed: 1) avoid destabilization of the structure during construction; 2) preserve the kilns in place and monitor during ramp construction; 3) record the building to the standards of the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER); 4) conduct research on the Trenton pottery industry as a whole; and 5) produce a booklet geared towards the general public that provides a narrative history of the pottery industry in Trenton. Items 4 and 5 were developed as alternatives to more traditional mitigation through data recovery.

The HABS/HAER recording of the Enterprise Pottery was conducted by John Milner and Associates

(1995), and Hunter Research was contracted by the Department of Transportation to undertake the historic research and booklet production for the project.

As part of the mitigation plan for the New York Avenue/U.S. Route 1 ramp, Hunter Research developed a relational database in MS-Access for Trenton's industrial potteries. The initial goal was to gather in one location basic reference and geographic information on the industry so that it could serve as a planning tool for future construction and development projects in Trenton. Once underway, however, it became apparent that the database could be a useful research tool for the Trenton industrial pottery industry.

Spanning the years 1850 to 1940, the database contains over 100 entries for industrial pottery manufacturing sites in Trenton. Much of the database's information was derived from primary sources available in the Trentoniana: Local History and Genealogy Collection at the Trenton Public Library, where archival materials such as historic maps, photographs, industrial censuses, tax records, and city directories were consulted.

Database entries contain information on pottery locations, years in operation, owners, and products. Reference information, including historic maps and city directory entries, is also included for each pottery. Scanned images of historic maps, photographs and engravings, maker's marks, and advertisements have also been incorporated into the database. Since some potteries are better documented than others, the amount and type of information for each pottery varies widely; some of the better known facilities, such as the John Moses & Sons Coalport Works, contain a large amount of information, whereas others, such as the Healey Pottery Company, contain little more than a name, date, and presumed years of operation.

To accompany the database a series of CAD maps was produced showing pottery locations in ten-year intervals from 1850 to 1940. The locations are plotted on a modern road map of the city of Trenton that includes the locations of the railroads and canals that played such an important role in the development of the industry. The maps demonstrate the growth, peak and decline of the industry and illustrate how the city's transportation network influenced where industrial pottery manufacturing concerns were located.

The last component of the mitigation plan is a teacher's guide on the pottery industry, *From Teacups to Toilets: A Century of Industrial Pottery in Trenton, Circa 1850 to 1940*. Hunter Research turned to Wilson Creative Marketing, a public relations firm based in Merchantville, New Jersey, for assistance with design, layout, and production.

From Teacups to Toilets was prepared as a guide to assist teachers in introducing fourth to eighth grades students to the pottery industry and to instruct

them in a variety of issues and subjects related to it. The guide is intended to instill a sense of pride in Trenton's industrial accomplishments and offer a link to the city's not-so-distant past. It contains sections on the rise and fall of the industry, the process of pottery manufacture, entrepreneurs and workers, and products. It also contains a glossary of terms, suggested activities for students, a limited bibliography and maps illustrating pottery locations, the movement of raw materials and final products, and pottery-related places to visit. Illustrations of potteries, workers, owners, and products, primarily from historic photographs and engravings, have been incorporated throughout the booklet.

The guide is available to teachers free of charge from the New Jersey Department of Transportation. To date, over 500 copies have been distributed, and feedback has been positive. Hunter Research, Wilson Creative Marketing, and the New Jersey Department of Transportation recently were joint recipients of a 1998 New Jersey Historic Preservation Award for *From Teacups to Toilets*.

Although the booklet has been completed and interested organizations, such as the Trenton Downtown Association, are trying to gather funds for a second printing, the database and maps are still in the final editing stages. But Hunter Research does not consider this stage of editing to be the last one, for the database is viewed as a work-in-progress. As it is distributed, other researchers and historians will be able to provide more information and the database will continue to grow. The challenge at this stage is to answer questions regarding maintenance and future funding and to develop a viable plan for disseminating, updating, and otherwise caring for the database.

The U.S. Route 1/New York Avenue ramp mitigation project has been in many ways a learning experience for everyone involved. It is an example of how interagency cooperation and creative thinking within an environmental impact framework can produce a research tool that will be of value to years to come. The New Jersey Department of Transportation is to be applauded for supporting this non-traditional mitigation plan whose positive outcomes are just now being realized.

References

- Hunter Research, Inc. *Cultural Resource Survey, U.S. Route 1 and New York Avenue Off-Ramp, City of Trenton, Mercer County, New Jersey*, (1995). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.
- John Milner and Associates, Inc. *Historic American Engineering Record Documentation of the Enterprise Pottery, Route 1SB over New York Avenue, City of Trenton, Mercer County, New Jersey* (1995). On file, New Jersey Historic Preservation Office, Trenton, New Jersey.

Patricia A. Madrigal is the principal investigator and data manager for Hunter Research, Inc., Trenton, New Jersey. Richard W. Hunter is president.